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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,987	02/27/2004	Daniel N. Harres	BING-1-1059	6841
7590	09/14/2005		EXAMINER HEALY, BRIAN	
Mark L. Lorbiecki, Esq. BLACK LOWE & GRAHAM PLLC Suite 4800 701 Fifth Avenue Seattle, WA 98104			ART UNIT 2883	
			PAPER NUMBER	

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/788,987

Applicant(s)

HARRES ET AL.



Examiner

Brian M. Healy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-16, 20-27, 31-36, 39 and 40 is/are rejected.
- 7) ☒ Claim(s) 6-8, 17-19, 28-30, 37 and 38 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Allowable Subject Matter

Claims 6-8, 17-19 , 28-30, 37 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the references of record teaches or suggests using the limitations of the independent claims 1,12, 23 and 33 with an optical detector with a mirrored surface.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 12, 14-16, 23, 25-27, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Forrest et. al., U.S.P. No. 4,709,413.

Forrest et. al. 413' teaches a method and apparatus for bidirectional optical signal transmission through an optical fiber having a principal axis comprising: (Fig.2) providing an optical fiber 14 in optical communication with an optical detector 26 (Note the optical detector also defines an optical port) located at least partially within the radius of the optical fiber 14 with the optical detector also defining an optical element with light signals from laser transmitter terminal 12 being directed to the optical detector 26 parallel to the principal axis of the optical fiber 14, which clearly, fully meets Applicant's claimed limitations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-11,13, 20-22, 24, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forrest et. al., U.S.P. No. 4,709,413 in view of Gryk, U.S.P. No. 5,392,370.

The teachings of Forrest et. al. 413' has already been discussed. Forrest et. al. does not teach the use of mirrors and/or lenses for imaging light signals from laser light sources to detectors via an optical axis which is disposed at an intersection point of the principal axis of the detectors in an optical fiber communications system.

Gryk 370' teaches (Fig.3) an optical fiber communications system which uses at least one optical lens 60,73,67,65 from an optical fiber 41 with mirrors 70A,65A,63..ect. located at the intersection points of the principal fiber axis and the detector axis 30(N),(2).

Since both Forrest et. al. 413' and Gryk 370' are from the same field of endeavor, i.e. optical fiber communications systems, the purpose of using optical lenses and mirrors to image/reflect optical signals to detectors from one axis to another, as is taught by Gryk 370' would have been recognized in the pertinent art of Forrest et. al. 413'.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the method and apparatus of propagating optical fiber signals, as is taught by Forrest et. al. 413' to include optical mirrors/lenses as an optical element to propagate optical signals from transmitters to detectors from one axis to another, as is taught by Gryk 370', for the purpose of routing optical signals in an optical communications system.

Claims 33-36,39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Courten, U.S.P. No. 5,118,185 in view of Forrest et. al. U.S.P. No. 4,709,413.

Courten 185' teaches (Figs.1-4) an aerospace vehicle 10 including a fuselage and propulsion system coupled to the fuselage with an optical system optical detector/transmitter means placed at least partially within fuselage pylons 24,16 with the optical system includes optical transmitters 28,30,32 which can utilize optical mirrors and lenses 40,58,42,52,62,50 either parallel to a main optical axis of at an intersection with a main optical axis to plural detector means 54,68,56 in order to provide optical targeting data, Courten 185' does not teach or suggest that the optical detector can be placed at least partially within the radius of the end of an optical fiber.

The teachings of Forrest et. al. 413' has already been discussed. Forrest et. al. 413' teaches that at optical detector can be placed within the radius of the end of an optical fiber for the purpose of detecting preferred optical signals.

Since both Courten 185' and Forrest et. al.413' are from the same field of endeavor, i.e. optical communications systems, the purpose of using a detector

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positionable at least partially with the radius of the end of an optical fiber, as is taught by Forrest et. al. 413' would have been recognized in the pertinent prior art of Courten 185'.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the aerospace vehicle of Courten 185' so that optical signals can be detected using a detector which is located at least partially in the radius of an optical fiber, as is taught by Forrest et. al. 413' , for the purpose of coupling preferred optical signals in an aerospace vehicle.

The following references are also cited by the Examiner as being pertinent prior art: Forrest et. al., U.S.P. No. 4,577,209 (Figs.1-6), Miller et. al., U.S.P. No. 4,292,512 (Figs.1-3), Isaksson, U.S.P. No. 5,347,605 (Figs.1-5) and Forrest et. al., U.S.P. No. 4,493,113 (Figs.1-6).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian M. Healy whose telephone number is (571)272-2347. The examiner can normally be reached on Compressed schedule Tues.-Thurs. 7AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571)272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian M. Healy
Primary Examiner
Art Unit 2883



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